

What is claimed is:

1. An optical pickup comprising:

a base made of synthetic resin, the base having a light passage hole penetrating the base, a laser hole communicating  
5 with the light passage hole, and a laser mounting surface formed at a periphery of an opening of the laser hole and having threaded holes;

a half mirror disposed in the light passage hole;

a photodiode disposed on one end opening of the light passage  
10 hole;

a collimator lens disposed on another end opening of the light passage hole;

an objective lens provided at the another end opening of the light passage hole;

15 a laser diode disposed in the laser hole;

a metallic holder retained on the laser mounting surface, the holder having a retaining hole provided penetratingly in the holder concentrically with the laser hole and through holes;  
and

20 a metallic radiating plate attached to an outer surface of the holder, the radiating plate having an engaging hole provided penetratingly in a substantially central portion of the radiating plate and a diameter of which is slightly smaller than that of the retaining hole;

25 wherein laser light is projected from the laser diode onto

a disk through the half mirror, the collimator lens, and the objective lens, and reflected light thereof is received by the photodiode through the half mirror, so as to read information recorded on the disk;

5       the laser diode is fitted in the retaining hole of the holder;

the engaging hole of the radiating plate is positioned concentrically with the laser diode, thereby clamping the laser diode by the radiating plate and the holder;

10       slits are formed in the radiating plate to form a pair of tongues in the manner of point symmetry about an axis of the engaging hole;

screw inserting portions formed in the respective tongues are made to communicate with the slits;

15       screws are passed through the screw inserting portions of the tongues and the through holes of the holder, and are screwed into the threaded holes of the laser mounting surface, thereby securing the radiating plate and the holder to the base;

the axis of the engaging hole is positioned on a phantom  
20 line connecting points of application of force generated at proximal end portions of the tongues when the screws are screwed in, and distances from the axis to the respective points of application of force are set to be substantially identical;

a recessed portion is formed on a portion of the laser  
25 mounting surface excluding peripheral edge portions of the

threaded holes, thereby defining a gap between the holder and the base; and

a plurality of radiating fins are projectingly provided on the holder.

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2. An optical pickup comprising:

a base made of synthetic resin, the base having a light passage hole penetrating the base, a laser hole communicating with the light passage hole, and threaded holes;

10 a laser diode disposed in the laser hole;

a photodiode; and

a radiating plate having an engaging hole provided penetratingly in a substantially central portion of the radiating plate, the radiating plate being made to abut against a rear surface of the laser diode while positioning the engaging hole concentrically with the laser diode;

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wherein laser light is projected from the laser diode onto a disk and reflected light thereof is received by the photodiode so as to read information recorded on the disk;

20 slits are formed in the radiating plate to form a pair of tongues arranging an axis of the engaging hole therebetween;

screw inserting portions formed in the respective tongues are made to communicate with the slits; and

screws are passed through the screw inserting portions of the tongues and screwed into the threaded holes of the base,

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thereby securing the radiating plate to the base.

3. The optical pickup according to claim 2, wherein an axis of the engaging hole is positioned on a phantom line connecting  
5 points of application of force generated at proximal end portions of the tongues when the screws are screwed in.

4. The optical pickup according to claim 3, wherein distances from the axis of the engaging hole to the respective points  
10 of application of force are set to be substantially identical.

5. The optical pickup according to claim 2, further comprising a metallic holder retained on a laser mounting surface formed at a periphery of an opening of the laser hole of the base,  
15 the holder having a retaining hole provided penetratingly in the holder concentrically with the laser hole;

wherein the laser diode is fitted in the retaining hole.

6. The optical pickup according to claim 5, wherein the laser  
20 diode is clamped by the holder and the radiating plate.

7. The optical pickup according to claim 6, wherein the screws are passed through the screw inserting portions of the tongues and through holes in the holder, and are screwed into the threaded  
25 holes formed in the laser mounting surface, thereby securing

the radiating plate and the holder to the base.

8. The optical pickup according to claim 5, wherein a recessed portion is formed on one or both of an inner surface of the holder and a portion of the laser mounting surface excluding peripheral edge portions of the threaded holes, thereby defining a gap between the holder and the base.

9. The optical pickup according to claim 5, wherein a plurality of radiating fins are projectingly provided on the holder.